

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of separating a polymer from a biomass containing the polymer, the method comprising:  
contacting the biomass with a solvent system, including a solvent for the polymer and a precipitant for the polymer, to provide a residual biomass and a solution that includes the polymer, the solvent for the polymer and the precipitant for the polymer; and  
applying a centrifugal force to the solution and residual biomass to separate at least some of the solution from the residual biomass;  
wherein the polymer comprises a PHA and the method separates the polymer from the biomass.
2. (Original) The method of claim 1, wherein the solvent for the polymer has a density of less than about 0.95 kilograms per liter.
3. (Original) The method of claim 1, wherein the solvent for the polymer is non-halogenated.
4. (Withdrawn) The method of claim 1, wherein the solvent for the polymer has a solubility in water of less than about one percent.
5. (Original) The method of claim 1, wherein the solvent for the polymer is substantially non-hydrolyzable.
6. (Original) The method of claim 1, wherein the solvent for the polymer has a logK value relative to water at 100°C of at least about 1.5.

7. (Original) The method of claim 1, wherein the solvent that has a boiling point greater than 100°C.

8. (Original) The method of claim 1, wherein the solvent for the polymer is selected from the group consisting of ketones, esters and alcohols.

9. (Original) The method of claim 1, wherein the solvent for the polymer is selected from the group consisting of MIBK, butyl acetate, cyclo-hexanone and combinations thereof.

10. (Original) The method of claim 1, wherein the precipitant for the polymer dissolves less than about 0.2% of the polymer at room temperature.

11. (Original) The method of claim 1, wherein the solvent for the polymer and the precipitant for the polymer have a relative volatility of at least about two at an equimolar bubble point for the solvent for the polymer and the precipitant for the polymer.

12. (Original) The method of claim 1, wherein the solvent for the polymer and the precipitant for the polymer do not form an azeotrope.

13. (Original) The method of claim 1, wherein the precipitant comprises at least one alkane.

14. (Original) The method of claim 1, wherein the solution comprises at most about 25% by volume of the precipitant for the polymer.

15. (Original) The method of claim 1, wherein the solution has a polymer concentration of at least about two percent.

16. (Original) The method of claim 1, wherein the solution has a viscosity of at most about 100 centipoise.

17. (Original) The method of claim 1, wherein the biomass containing the polymer is of microbial origin and has a polymer content of at least about 50 weight percent.

18. (Original) The method of claim 1, wherein the biomass containing the polymer is of plant origin and has a polymer content of less than about 50 weight percent.

19. (Original) The method of claim 1, wherein the biomass containing the polymer comprises cells that contain the polymer.

20. (Original) The method of claim 1, further comprising removing at least some of the polymer from the solution.

21. (Original) The method of claim 20, further comprising extruding the removed polymer to dry and pelletize the polymer.

22. (Original) The method of claim 20, wherein removing the polymer from the solution does not include exposing the solution to hot water.

23. (Original) The method of claim 20, wherein removing the polymer from the solution includes adding a second precipitant for the polymer to the solution.

24. (Original) The method of claim 23, wherein the first and second precipitants for the polymer are the same.

25. (Original) The method of claim 20, further comprising evaporating a portion of the solution before removing at least some of the polymer from the solution.

26. (Original) The method of claim 1, further comprising, after applying the centrifugal force to the solution, adding a volume of a second precipitant for the polymer to remove at least some of the polymer from the solution,

wherein the volume of the second precipitant is less than about two parts relative to the volume of the solvent system.

27-107. (Cancelled)

108. (Original) The method of claim 1, wherein the solvent system is contacted with the biomass under countercurrent flow conditions.

109. (Original) The method of claim 108, wherein the method is a one-stage method.

110. (Original) The method of claim 108, wherein the method is a multi-stage method.

111. (Original) The method of claim 108, wherein the countercurrent conditions include a pressure of at least about 65 psig.

112-127. (Cancelled)